

## **XV. Winter Storms and Blizzards**

Severe winter storms affect far more people in Wyoming than their summer counterparts, even though they are inherently less violent. Blizzard conditions bring the triple threat of heavy snowfall, strong winds, and low temperatures. Poor visibility and huge snowdrifts are major hazards caused by blowing snow. These storms disrupt work, make travel difficult or impossible, isolate communities, kill livestock by the hundreds or thousands, and sometimes leave human fatalities in their wake. Fortunately, the simultaneous combination of heavy snowfall, strong winds, and low temperatures are fairly rare, even in Wyoming. In some cases, however, strong winds often lift snow crystals from the ground in quantities large enough to produce hazardous ground blizzards without accompanying snowfall.

Data show that Lake Yellowstone and Lander lead the state in frequency of major snowstorms with an average of about five such days per year. The time of year when they receive these storms, however is quite different. At Lake Yellowstone and throughout most of western Wyoming, major snowstorms strike most often in the mid-winter months. At Lander and most other parts of the state (excluding the high mountains) major snowstorms hit with greatest frequency in March and April. The springtime snowstorm peak is particularly destructive for ranchers because it coincides with calving and lambing seasons. Damaging winter weather has occurred in October as well.

### **History**

The winter storm history in Crook County extends from 1886 to present. Crook County has a winter storm of significance about every 1.3 years, based on 94 events during a 126 year period. There have been a few winter storms in the county that have caused great damage, economic impact, and brought about change in livestock practices. A complete history of storms that caused damage, significant closure of highways, and/or impacts to the livestock industry is in Table 15.1. The data were derived from the monthly Storm Data reports from National Oceanic and Atmospheric Administration's (NOAA) National Climatic Data Center (NCDC). Other sources include unpublished reports from the Wyoming Office of Homeland Security, newspaper accounts, and periodicals from public libraries. Two of the most significant storms to affect Crook County are described below.

The worst late spring blizzard ever to hit Wyoming battered the northern part of the state for three days between April 24-27, 1984. The northeast section was the hardest hit as snowfalls of 2 to 3 feet were whipped into 15 to 20 foot drifts by 65 mph winds. A rancher near Wright and one near Sundance died of exposure as they were stranded hauling hay to their livestock. All of northeast Wyoming was effectively shut down for two days by the blizzard. The major damage occurred to the livestock industry as over 200,000 sheep and cattle perished in the storm. Some ranchers lost up to 95 percent of their sheep, and up to 50 percent of their cattle. Contributing factors to the very high losses were: a large number of the sheep had recently been shorn; the livestock were well into the spring lambing and calving season; and finally, the storm started as cold rain that changed to wet snow which stuck to everything. In addition, the weight of the record-breaking snow damaged many roofs, and high winds of 50 to 65 mph blew down quite a

few structures. In retrospect, the blizzard of '84 will go down in the record books as the worst late spring blizzard ever in Wyoming, incurring over \$100,000,000 in damage. In 2012 dollars that equates to a total economic impact of \$221.6 million. The storm is the most costly in Wyoming's history.

On November 1, 2000, an intense winter storm brought high winds and heavy, wet snowfall to portions of Northeastern Wyoming. In Crook and Weston counties, snowfall rates were one to two inches an hour. Snowfall totals in the plains were from 4 to 8 inches, while in the Bear Lodge Mountains, totals were from 8 to 24 inches. The Four Corners area in Northeastern Weston County reported the most snowfall at 24 inches. High, sustained winds up to 40 mph with gusts to 60 mph caused blizzard conditions and toppled 600 power poles. Seven thousand people were without power; almost 15 miles of lines had to be replaced. The City of Moorcroft had more than 150 stranded semi-trucks after the interstate was shut down.

**Table 15.1 Crook County Damaging Winter Storms: 1886-2012**

Location	County	Start Date	End Date	Deaths	Injured	Estimated Damage - Property	Estimated Damage - Crops	Information
Statewide	Statewide	1886	1887	Several	Several		Loss of 50% of livestock operations	The winter of 1886 to 1887 was the earliest severe economic disruption. The snow that winter came early and grew very deep. Then, a freak thaw turned much of this to water. As cold weather moved back in, this froze into a crust of ice, which prevented cattle getting through to the forage underneath. These conditions, accompanied by blizzard of unusual severity, caused a loss of more than 50% among the State's livestock operations. The snow was 6 feet deep on the level between Mountain Home and Woods Landing. On February 12, 1887 the storms were still raging over the State, and the snow was packed so hard that stages could drive over it. Trains were stalled on their tracks. The winter sounded the death knell of the open range cattle business as it had been during previous years. The real disaster to cattlemen had been in the winter of 1886 which has been called "The Equalizer". My father a boy of 8 at the time recalls the spring of 1887. In certain sheltered area he and companions amused themselves stepping from one carcass to another without ever setting foot to the ground.
Statewide	Statewide	1888-Jan-11	13-Jan-1888	Great loss of life			Thousands of cattle	This blizzard covered a number of states. The combination of strong winds, snow and rapid temperature drops made it very dangerous. Loss of life was great and thousands of cattle died.
Statewide	Statewide	1931-Mar-25	28-Mar-1931	2				This blizzard covered several states. Temperatures dropped rapidly. Strong winds drifted snow badly, blocking highways for several days. Two people died in Wyoming.
Statewide	Statewide	1939-Apr-16						A number of sheep were reported killed in a blizzard that swept the State on the sixteenth.
	Northeast Wyoming	1946-Mar-20	21-Mar-1946					A heavy snow storm occurred over the northeast portion on the 20 <sup>th</sup> and 21 <sup>st</sup> . The storm covered a large area and many stations reported from 12 to 17 inches in snow. Many of the secondary roads in the north portion of the State were blocked by this storm.
Statewide	Statewide	1947-Jun-11	12-Jun-1947			\$250,000		Heavy losses were experienced in livestock during the storms on June 11-12 and 20-21. One rancher in the Cheyenne area reported losses of approximately \$15,000, and in Natrona County losses are estimated at \$125,000. It is estimated that the losses throughout the state from these two storms will run to approximately a quarter of a million dollars. These losses were confined entirely to newly shorn sheep and young lambs. Some damage resulted to the bean crop and wheat by frost following the

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Location	County	Start Date	End Date	Deaths	Injured	Estimated Damage - Property	Estimated Damage - Crops	Information
								storm of June 11-12, but the principal damage was to gardens.
Laramie, Albany, Carbon, Campbell, Crook, Niobrara, Goshen, Weston, Platte, and Converse	Eastern and Central Wyoming	1949-Jan-02	20-Feb-1949	17		\$9,000,000	Livestock losses were great	Snowfall measured up to 30 inches, with drifts 20 to 30 feet high. Within 24 hours of the storm initiation, all bus, rail, and air traffic was halted. There were thousands of stranded motorists and rail passengers. Thirty-three hundred miles of state highway lay in the storm area; there was an estimated loss of 15% of the state's cattle. Seventeen people perished, along with 55,000 head of cattle and more than 105,000 sheep. As the storm continued, Wyoming cities began to run out of food in the stores. Several other blizzards followed the first. "It is estimated from reports of field men that 4,194 people received aid through the Interior Department operations; that 104,839 cattle and 421,479 sheep were relieved; and that help was given to 994 ranches. A total of 12,894 miles of roads and feed lanes were opened; 1,457 tons of food, fuel and other supplies were hauled over opened roads; 26,604 tons of feed was hauled over opened roads or made available; and the total number of operated machine hours, for snow moving equipment only totaled 18,310. Wind speeds were 30 to 78 mph with an average of 55 mph. Temperature was below zero. Funding: \$200,000 initial relief, later an additional \$500,000, federal government turned over \$125,000. Out of the \$700,000 appropriated, more than \$450,000 was returned. Damage and cost: Highway department normally spent \$265,000 for snow removal, this storm generated costs of \$618,029.50; Total economic loss is estimated at more than \$9 million. Time spent: December through March snow removal equipment spent 139,000 hours. Man hours amounted to 201,000 hours. Cost of these operations to the government is estimated at \$169,550.64, with a unit total cost of approximately \$13.15 per mile of road opened and approximately \$9.25 per operated hour of snow moving equipment.
Statewide	Statewide	1950-Mar-25	27-Mar-1950	1				Heavy snow and strong winds covered much of several states, including Wyoming. Snowfall up to 60 inches fell in Wyoming. There was widespread damage to power lines and many cars and trains were stranded. Drifts were up to 16 feet and one person died in the state.
Statewide	Statewide	1955-Feb-18	20-Feb-1955	4				This blizzard covered several states, including Wyoming. Up to 11 inches of snow fell with winds to 65 mph and temperatures below zero. There were four deaths in Wyoming.

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Location	County	Start Date	End Date	Deaths	Injured	Estimated Damage - Property	Estimated Damage - Crops	Information
Statewide	Eastern Wyoming	1956-Nov-1	3-Nov-1956					A severe blizzard on November 1-3 wrought general havoc in the eastern half of Wyoming; transportation was disrupted, utilities damaged, and livestock lost.
Statewide	Statewide	1957-Mar-22	25-Mar-1957					Heavy snow fell over several states, including Wyoming. Drifts were from 10 to 25 feet deep and many motorists were trapped in cars or snow bound in towns.
	Northern Wyoming	1958-Apr-22	23-Apr-1958					The snowstorm started on the 22 <sup>nd</sup> and continued through the 23 <sup>rd</sup> . Although snow was reported by most stations in the northwest quarter of the State, the greatest accumulation was reported over the northern part of the Big Horn Mountains. Snow depths in the mountains ranged up to three feet in Wyoming. Drifting snow blocked mountain roads trapping six persons on a mountain pass 9,000 feet high. When the storm broke a spectacular helicopter rescue was performed. There was some loss of livestock as well as downed telephone and power lines. Schools were disrupted but storm losses were more than offset by increased water supplies.
	Northeast Wyoming	1958-Oct-20						Snow combined with strong winds on October 20 to cause considerable inconvenience and some damage through the northern counties of Wyoming from the Big Horn Mountains eastward. Snowfall accumulations over the Big Horn Mountains ranged up to 18 inches. Several hunters were caught in the storm. Northward into Montana, there was some loss of life. In the northeast corner of Wyoming, as much as 10 to 12 inches of snow fell. Strong winds, together with the snow, took down power and telephone lines, televisions antennas, upset small buildings, and caused miscellaneous other damage. Livestock damage was not large because of the relative warmth and short duration of the storm.
Statewide	Statewide	1961-Oct-28		5	4	\$27,500	\$0	Snow accompanied by high winds began early afternoon and continued through the evening. Three people were killed and four were injured in auto accidents caused by low visibility. Two hunters were lost and died in the storm.
Statewide	Statewide	1965-Sep-15	17-Sep-1965	0	0	\$2,750,000	\$0	A cold wave moved over the state the evening of the 15th and caused considerable damage to crops, trees, power and phone lines, stopped much of the transportation by closing roads, caused an estimated 5% shrinkage in marketable livestock and a few death losses in livestock. Temperature dropped quite low for so early in the season and the heavy (18"-22") band of snow from the southwest part of the state to the northeast part was by far the heaviest so early in the season.
Niobrara,	Eastern	1967-Apr-29	30-Apr-1967	0	0	\$275,000	\$0	Heavy snowstorm began early evening spreading over

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Platte, Carbon, Natrona, Sheridan, Albany, Laramie, Weston, Crook, Converse, Campbell and Goshen	Wyoming							eastern Wyoming with strong winds. Considerable damage was done to power and phone lines. Highways were blocked with travel halted. Stockmen in northeast quarter of the state lost stock especially newborn calves and lambs.
Crook, Weston, Campbell	Northeast Wyoming	1967-May-01		0	0	\$2,750,000	\$0	A heavy snowstorm started the evening of the 29th of April and continued to late on the 1st of May accompanied by strong winds. Damage was done to communication lines, electric lines, transportation was halted, and several thousand sheep and cattle were killed.
Crook, Weston, Campbell, Converse, Niobrara	Northeast Wyoming	1969-Apr-24	27-Apr-1969	0	0	\$5,500,000	\$0	Heavy wet snow with strong winds, occasionally reaching 60 knots did about \$5.5 million damage over much of northeast Wyoming. Losses of sheep were especially heavy as shearing and lambing were well underway. Lighter losses were incurred in the cattle industry. Forests were damaged as well as utility lines, and roads were blocked, with numerous accidents due to low visibility.
Statewide	Statewide	1973-Mar-13	14-Mar-1973	0	0	\$275,000	\$0	Heavy snow and strong winds blanketed the state, with roads, streets, and farms and ranches blocked. There were numerous power and communications outages as well as livestock losses.
Statewide	Statewide	1975-Mar-27	28-Mar-1975	0	0	\$2,750,000	\$0	A severe blizzard with winds 40 to 50 mph and gusts to 75 mph, snow and temperatures down to 0 degrees started the morning of the 27th and continued to the evening of the 28th. Highways were blocked and some people stranded for varying times but all rescued. Some damage to signs, windows, trees, etc., but most damage to livestock, especially new born, and to cows (udders frostbitten, etc.). The storm was most severe over the eastern half of the state and most of the damage was there also.
Statewide	Most of Wyoming	1975-Dec-31	1-Jan-1976	0	0	\$275,000	\$0	Heavy snow with strong winds began early on December 31, 1975 and continued through most of the State through most of the storm. Livestock losses were minimal and most of the damage is attributed to loss of time, cars stuck, rescue missions and snow removal.
Statewide	Statewide	1977-Nov-16	19-Nov-1977	1	0	\$275,000	\$0	Snow with large accumulations entered the state the afternoon on the 16th, accompanied by very cold temperatures. Some blowing and drifting caused

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								hazardous driving conditions in many areas. The snow ended by the morning of the 18th but was quickly followed by strong, gusty, westerly winds which moved the large amounts of loose snow into ground blizzards with severe problems on highways, ranches, etc. One man was killed at Rawlins as he tried to walk into town along the interstate from the west. Numerous people were stranded along the highways and in towns and ranches until the roads were opened.
Big Horn, Campbell, Converse, Crook, Johnson, Natrona, Sheridan, Washakie, Weston, Hot Springs, and Niobrara	Central and East portions of Wyoming	1978-May-04	7-May-1978	0	?	\$11,753,000	\$0	This late spring snowstorm dumped 15 to 32 inches of wet heavy snow over much of central and eastern Wyoming including 11 counties (Big Horn, Campbell, Converse, Crook, Johnson, Natrona, Sheridan, Washakie, Weston, Hot Springs, and Niobrara). Extensive damage to crops and livestock was estimated at \$11,743,890. Numerous local power outages were reported. Many county and state roads were closed, especially in the Laramie area. Interstate 80 was closed west of Cheyenne for nearly two days.
Statewide	Statewide	1978-Dec-05	7-Dec-1978	0	0	\$275,000	\$0	This very heavy snow storm dumped over a foot of snow across much of the state causing road and airport closures in many areas throughout the state. Winds gusting to 75 mph caused extensive blowing and drifting snow, stopping both local and interstate travel. This storm isolated livestock from ranchers, contributing to subsequent substantial losses of cattle and sheep in Wyoming.
Statewide	Statewide	1979-Jan-01	31-Jan-1979	0	0	\$2,500,000	\$0	Numerous heavy snows combined with prolonged extremely cold temperatures have caused widespread damage across much of Wyoming during the month of January. Estimated loss of 2700 sheep and 2000 cattle with projected losses of calves and lambs to 35,000 head are reported. Also, numerous towns and communities across the state have extensive damages to their water systems due to frozen water mains and sewer systems. Emergency Winter Storm Relief Aid of \$2.5 million is currently being asked for by the State.
Statewide	Statewide	1980-Jan-10		0	0	?		Much of the state was paralyzed. Freak thunderstorms occurred in Casper, Riverton, and Lander areas. Roads were closed and some motorists stranded. Interstate 25 from Laramie to the Utah state line was closed by winds approaching 80mph in south-central Wyoming. An estimated 60 vehicles were in the ditch along I-80 west of Rawlins. Reported 90 mph winds in Medicine Bow blew

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								out car and truck windows and a large window in a cafe. Many schools were closed.
Statewide	Statewide	1980-Jan-25	27-Jan-1980	4	?	?		Snow and blowing snow from the morning of the 25th to the evening of the 27th swept across Wyoming dumping a record 11 inches of snow on Cheyenne in a 12-hour period. Heavy snow and slick road surfaces due to bitter cold temperatures closed many highways and interstates, including I-80 from the Nebraska state line to Rock Springs. Near Bitter Creek Hill, 38 miles east of Rock Springs, 21 cars and trucks were involved in a pile-up on the afternoon of the 25th. Two men were killed at 1900 MST on the 26th, 9 miles east of Powell when the driver lost control, ejecting both men. One fatality occurred on the 27th at 11:30 a.m. on I-80 near Rock Springs when a car slowed down because of poor visibility and slick roads and the truck driver, trailing the vehicle, failed to slow down in time and crushed the back end of the car in which the victim was riding. A man died about 1245 MST on the 27th when the flatbed truck he was driving 95 miles south of Gillette jack-knifed on a left-hand curve and rolled on its top. Schools in Cheyenne were closed at noon on Friday and did not reopen until Wednesday. Most churches in Cheyenne remained closed on Sunday. Casper thermometers dipped to record lows of -27° on Saturday, -28° on Sunday night, and -32° Monday morning. Cheyenne reported temperatures at 0 or below zero for a period of 79 hours. Weather-related problems may have caused the derailment of 12 empty freight cars at Point of Rocks at 0645 MST on the 25th.
Statewide	Statewide	1980-Oct-14	16-Oct-1980	4	5	?	\$0	Snow beginning on the evening of the 14th moved across the state leaving 13 inches in Laramie and 11 inches in Rawlins. Most other areas received from 1-3 inches. Some highways were closed on the 16th, including I-80 between Cheyenne and Walcott Junction (100 miles). One person was killed and three others injured in a storm-related two-vehicle accident southwest of Cody on the 15th. The storm apparently contributed to a light plane crash that killed one man near the airport at Rock Springs at 2110 MST on the 15th. Blizzard-like conditions were contributing factors when a freight train plowed into the caboose of a grain train 13 miles southeast of Laramie about 1600 MST on the 16th, killing two crew members and injuring two others. Schools in Laramie, including the University of Wyoming, were closed on the 16th. Many hunters were stranded. Tree limbs snapped causing

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								power outages in Rawlins and Sinclair.
Crook, Weston, Campbell, Niobrara, Albany, Platte, Goshen, and Laramie	Eastern Wyoming	1982-Oct-08	9-Oct-1982	0	0	\$100,000	\$0	An early fall storm swept across the mountains, and plains of Wyoming Friday night and Saturday. The storm buried the Bear Lodge Mountains and the Moskee area south and east of Sundance on Crook and Weston Counties with up to 5 feet of wet snow. An estimated 4,000 cattle still on summer ranges were stranded. Rescue efforts estimated at \$100,000 lasted from Oct. 11 to the 17th. Elsewhere in the east plains, high winds with record peak gusts to 65 mph at Cheyenne, 54 mph at Sheridan, 53 mph at Laramie, and 50 mph at Gillette, caused blowing snow and reduced visibilities to zero in some areas.
Fremont, Natrona, Sheridan, Johnson, Campbell, Crook, and Weston		1983-Jan-08	9-Jan-1983	0	0	\$2,750	\$0	Snow up to 6 inches in the northern mountains and up to 3 inches at lower elevations combined with high winds gusting to 60 mph in some central and northeast sections of the state. Localized blizzard conditions forced the closure of South Pass at the southern tip of the Wind River Range and all highways in and out of Sundance on the west slopes of the Black Hills.
Crook, Campbell, Weston, Natrona, Albany, Platte, Goshen, Laramie, Sweetwater, Lincoln, and Uinta	East and South Counties	1983-Mar-05	6-Mar-1983	0	0	\$2,750	\$0	A major winter storm deposited a blanket of snow varying from 4 to 16 inches over east and south Wyoming stranding over 250 travelers in Laramie alone. All roads in and out of Cheyenne and Laramie were closed with additional closures between Rawlins and Evanston. Winds averaging 25 mph and gusting to near 40 mph in many areas caused ground blizzards.
	All but northwest and north central Wyoming	1983-Apr-12	13-Apr-1983					A two-day storm buried most of the state with 6 to 15 inches of snow. Some mountain locations near Casper received up to 2.5 feet of snow. In addition, north winds of 25 to 40 mph caused near blizzard conditions mainly in the southwest and southeast with many roads closed. Power also was interrupted for up to 6 hours in quite a few areas of the state.
Converse, Natrona, Niobrara, Hot Springs, Johnson, Sheridan, Washakie, Campbell,	All of WY except the Southeast Quarter	1983-May-11		0	0	?	\$0	A spring snowstorm swept through northern, central and western Wyoming dumping an average of 6 to 12 inches of snow. Up to 18 inches fell in some western mountain towns. Near blizzard conditions occurred in southwest Wyoming as northeast winds of 30 to 40 mph whipped up 2 to 4 foot drifts. At least two interstate highways were closed for a period of time, and lots of traffic accidents were reported across the state.

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Crook, Weston, Big Horn, Park, Teton, Carbon, Fremont, Sublette, Lincoln, Sweetwater, Uinta								
Statewide	Statewide	1983-Dec-20	25-Dec-1983	0	?	\$2,750,000	\$0	The worst arctic outbreak ever in December hit Wyoming full-force with almost all of the state remaining below zero for five days. Overnight lows in the 20 to 40 below range were common, with quite a few towns setting record Dec lows. Most Wyoming residents fared much better in the cold than mechanical items. A malfunctioning transformer left the town of Lander without power for 12 hours, and numerous vehicles were damaged by the extreme temperatures. The greatest damage, however, occurred to homes and businesses as hundreds of water pipes froze and burst. The State Capitol Building in Cheyenne, for example, suffered almost \$250,000 in damage due to burst water pipes.
Crook, Weston, Campbell, Sheridan, Johnson, Big Horn	Northern two-thirds of State	1984-Apr-25	27-Apr-1984	2	?	\$100,000,000	\$27,500	The worst late spring blizzard ever to hit Wyoming battered the northern part of the state for three days. The northeast section was the hardest hit as snowfalls of 2 to 3 feet were whipped into 15 to 20 foot drifts by 65 mph winds. A rancher near Wright and one near Sundance died of exposure as they were stranded hauling hay to their livestock. All of northeast Wyoming was effectively shut down for two days by the blizzard. The major damage occurred to the livestock industry as over 200,000 sheep and cattle perished in the storm. Some ranchers lost up to 95 percent of their sheep, and up to 50 percent of their cattle. Contributing factors to the very high losses were: a large number of the sheep had recently been shorn; the livestock were well into the spring lambing and calving season; and finally, the storm started as cold rain that changed to wet snow which stuck to everything. In addition, the weight of the record-breaking snow damaged many roofs, and high winds of 50 to 65 mph blew down quite a few structures. In the Big Horn Basin, a drive-in theatre was demolished by winds at Basin, and roofs and trees were heavily damaged at Worland. In retrospect, the blizzard of 84 will go down in the record books as the worst late spring blizzard ever in

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Location	County	Start Date	End Date	Deaths	Injured	Estimated Damage - Property	Estimated Damage - Crops	Information
								Wyoming. Other storms have been worse in northeast Wyoming, but they occurred in the months of January and March, not at the end of April.
Crook, Weston, Campbell, Converse, Niobrara, Natrona, Carbon	Central and Eastern WY	1987-Mar-20	21-Mar-1987	0	0	\$0	\$0	A small but vigorous winter storm developed over south central Wyoming on the morning of the 20th. This storm raced through eastern Wyoming by the morning the 21st and ushered in spring with 6 to 12 inches of snow in its path. Strong gusty winds of 35 to 55 mph accompanied the storm, creating many areas of blowing and drifting snow. Many roads were closed for a time, even all the interstate highways from Rawlins in the south to Sundance in the northwest. This was due to the wind pushing fast-developing drifts over roads and blowing snow reduced visibilities at times to near zero. Numerous minor accidents were noted across central and eastern Wyoming. Also some ranchers had trouble feeding their livestock as well. Some individual snowfall reports were 11 inches at Douglas, 9 inches at Casper and 6 inches in Gillette.
Niobrara, Platte, Carbon, Natrona, Sheridan, Albany, Laramie, Weston, Crook, Converse, Campbell and Goshen	Eastern Wyoming	1988-Jan-23		0	0	\$0	\$0	A very strong upper level northwest flow of air over Wyoming mixed down and accelerated surface winds to 30 to 45 mph with gusts 55 to 70 mph from north-central to southeast Wyoming. The most noticeable wind gusts were at Arlington, 65 mph; Casper, 70 mph; Cheyenne, 58 mph; and Sheridan, 71 mph. Also, this strong northerly airflow helped to dump 5 inches of new snow about 25 miles west of Laramie near Centennial. Most roads were closed over south-central and southeast Wyoming due to blowing and drifting snow. Visibilities were reduced below 1 mile in the blowing snow.
Sheridan, Campbell, Platte, Albany, Laramie, Carbon, Big Horn, Crook, Goshen counties	Big Horn Mountains and northeast plains	1988-Jan-24	25-Jan-1988	0	0	\$0	\$0	Very strong upper level northerly flow of air continued to prevail over eastern Wyoming. This strong flow of air induced strong surface winds of 35 to 45 mph with gusts of 55 to around 70 mph. Peak wind gusts of 72 mph from 0400 to 0600 MST on the 24th flipped over a fairly large mobile home on to two cars in the Gillette area. Also, these strong winds tore the roof off a house 4 miles west of Gillette. A power plant northeast of Wheatland clocked wind gusts of 70 mph from 0200 to 0630 MST on the 24th. From 2000 MST on the 24th to 1000 MST on the 25th sustained winds of 35 to 45 mph were clocked with gusts near 58 mph from Arlington to Cheyenne along I-80 over southern Wyoming. This storm dumped 10 inches of snow at Burgess Junction in the Big Horn Mountains and 5 inches over the Black Hills near Sundance. These

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								strong winds produced snow drifts of 14 to 16 foot deep over the southeast. Numerous roads were closed over east Wyoming due to strong winds and the associated snow drifts. The National Guard had to dig out stranded ranch families in southern Goshen County.
Niobrara, Platte, Carbon, Natrona, Sheridan, Albany, Laramie, Weston, Crook, Converse, Campbell and Goshen counties	Eastern Wyoming	1988-Mar-10	12-Mar-1988	0	5	\$275,000	\$27,500	An intense winter storm which developed over Nevada on the 9th moved through Colorado on the 10th and 11th and into Kansas on the 12th. This winter storm combined with good easterly flow over Wyoming first smashed into west and central Wyoming with 5 to 14 inches of new snow. As this winter storm moved through Colorado it intensified and produced blizzard conditions over much of eastern Wyoming from the 10th to the morning of the 12th. Six to 25 inches of new snow generally dumped on eastern Wyoming with this storm. Also sustained winds of 25 to 40 mph with gusts of 50 to 65 mph raked across eastern Wyoming. This heavy snow and strong winds frequently kept visibilities below 0.25 mile over much of southern and eastern Wyoming. The strong winds and heavy snow whipped snow drifts to a depth of 10 to 30 feet over eastern Wyoming. Most roads were closed at times over south and eastern Wyoming due to the extremely low visibilities and blowing and drifting snow. Numerous traffic accidents occurred across the State with at least five people sustaining injuries. Travelers were stranded throughout east Wyoming with over 200 people trapped at the Snowy Range Ski Resort west of Laramie. The skiers spent the night sleeping on floors and tables. The eastern plains were particularly hard hit by the blizzard from Douglas southeast to the LaGrange area. A few travelers in the eastern plains were completely trapped in their vehicles for 36 to 40 hours. Drifts ranging from 15 to 30 feet high were common around Lusk with a number of vehicles totally buried by the snow. Ranchers over the eastern plains were in the midst of calving and lambing season. About 15 to 35 head of calves were lost. Some noticeable snowfall totals were Albin, 18 inches; Bates Creek, 13 inches; Burgess Junction, 20 inches; Douglas, 11 inches; Gillette, 12 inches; Keeline, 10 inches; LaGrange, 21 inches; Lander, 10 inches; Laramie, 11 inches; Lusk, 20 inches; Rock Springs, 20 inches; Snowy Range, 14 inches.
Big Horn, Sheridan, Johnson, Park,	Northern and west-central Wyoming,	1988-May-06	7-May-1988	0	0	\$0	\$0	The strong low pressure system both at the surface and aloft moved slowly northeastward to extreme southeast Montana by the 7th. This storm unleashed very heavy

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Location	County	Start Date	End Date	Deaths	Injured	Estimated Damage - Property	Estimated Damage - Crops	Information
Teton, Carbon, Albany, Sublette, Crook	South-central mountains							snow over most areas with elevations above 6000 feet MSL in the north and west sections of Wyoming. Since this storm had begun the morning of the 6th more than 20 inches of new snow had fallen in the Big Horn Mountains of northern Wyoming, while there was 6 to 10 inches of snow at Yellowstone National Park. Additionally, more than 10 inches of new snow was on the ground near Pinedale, located in west-central Wyoming, and the Snowy Range to the west of Laramie. More snow fell at these locations during the 7th. By 1335 MST on the 7th, Arrowhead Lodge in the Big Horn Mountains had a total of 3 feet of new snow on the ground. Bear Lodge, located in the Wyoming Black Hills, had 24 to 30 inches of new snow by the afternoon of the 7th. Numerous trees and power lines were downed by very wet snow, with several communities without electricity through much of the 7th.
Statewide	Statewide	1989-Feb-02	6-Feb-1989	0	0	\$0	\$0	Record cold temperatures gripped the state from the 2nd through the morning of the 6th, the coldest in at least 5 years. Many locations had at least 80 to 100 consecutive hours of subzero readings. Wind chills from 50° to 90° below zero accompanied the cold. Most overnight lows were between minus 20° and minus 40° with maximum temperatures struggling above 15° or 20° below zero. On the morning of the 3rd, Sheridan set a record low of minus 32°, eclipsing the old record of 24° below zero, set in 1985. Casper had a record low 27° below zero. The minimum at Cheyenne was minus 24°, one degree shy of the record low for the 3rd, dating back to 1883. Additionally, Weston, located over far northern Wyoming, dropped to 47° below zero while locations in Yellowstone National Park dipped lower than minus 40°. These low temperatures, including several records, were typical through the 6th. The maximum temperature for Cheyenne on the 3rd was 18° below zero. Not only was that a record low maximum, but the second coldest such reading since weather records have been kept at Cheyenne, back more than 100 years. During the morning of the 6th, the temperature at the capitol city finally rose above zero. The record is 120 hours, set in December 1983. Due to this Arctic episode, this was the coldest February ever for Casper. It was also the worst cold spell for Gillette in a decade.
Statewide	Statewide	1989-Dec-21	22-Dec-1989	0	0	\$0	\$0	As a result of the combination of calm winds, a bitterly cold arctic air mass and deep snow cover, extremely low minimum temperatures occurred across the cowboy state

**Table 15.1 Crook County Damaging Winter Storms: 1886-2012**

Location	County	Start Date	End Date	Deaths	Injured	Estimated Damage - Property	Estimated Damage - Crops	Information
								during the morning of the 22nd. Many of these temperatures were not only record lows for the date, but also the coldest ever for December. The lowest temperatures were generally over the Eastern two-thirds of Wyoming. Recluse, in the far Northeast corner, had a low of 50° below zero. Other lows included 47° below in Redbird, 40° below at Douglas, 35° below at both Sheridan and Gillette, 34° below zero in Laramie, 28° below at both Casper and Cheyenne, 23° below in Cody, 14° below at Farson and 13° below zero in Lander.
Niobrara, Platte, Carbon, Natrona, Sheridan, Albany, Laramie, Weston, Crook, Converse, Campbell and Goshen	Eastern Wyoming	1990-Mar-15		0	0	\$0	\$0	During much of the 15th, high winds blew across eastern Wyoming. Sustained winds of 40 to 55 mph were common. Some peak wind gusts were: 67 mph near Wheatland; 65 mph on the I-80 summit; 30 miles west of Cheyenne; 60 mph in Sheridan; and 58 mph at Gillette. These winds produced widespread blowing and drifting snow and ground blizzard conditions across the far southeastern part of the state. During most of the 15th, almost all roads to and from Cheyenne and Laramie were closed because of the blowing snow. It was not until the afternoon of the 16th that the roads were reopened for travel.
Big Horn, Sheridan, Johnson, Campbell, Crook, Weston	Big Horn Mountains, Northern Front Range, Northeastern Plains	1990-Apr-26	27-Apr-1990	0	0	\$0	\$0	A spring snowstorm dumped heavy snow on northeast Wyoming. Highest amounts fell in the Big Horn Mountains (18 inches), with about 4 to 12 inches elsewhere. The snow was particularly wet and heavy across most of Campbell County and the western parts of Crook and Weston Counties. Most of the damage was to power lines as approximately 400 poles went down. Power was out in some areas for up to 3 days.
Statewide	Statewide	1990-Dec-18	22-Dec-1990	0	0	\$27,500	\$0	A major winter storm followed by a bitterly-cold Arctic outbreak, plagued most of Wyoming for about two to four days. Heavy snows with strong winds occurred on the 18th over the far western part of the state, with up to a foot in the mountains. Light snows of 2 to 6 inches generally occurred over the rest of the state, except in the far southwest where storm totals approached 15 to 20 inches by 1800 MST on the 19th. Bitterly-cold Arctic air started spilling into the state after 1200 MST on the 18th on brisk northern winds. On the 19th and 20th, wind chills dropped to -40° to -75° at times in many areas. The coldest temperatures occurred on the 21st and 22nd, with most areas from -25° to -45°. Minus 50° readings were reported at Worland and near Jackson. Casper set an all-time record-low of -41° on the 21st. Major roads affected

**Table 15.1 Crook County Damaging Winter Storms: 1886-2012**

Location	County	Start Date	End Date	Deaths	Injured	Estimated Damage - Property	Estimated Damage - Crops	Information
								by the snow and winds were confined to the far west and southwest. The worst conditions occurred along I-80 from Rock Springs to Rawlins on the night of the 19th and 20th where snow and strong winds closed the road, stranding many people. The bitter cold caused power outages in some places, most notably in Jackson. Schools and other events were widely canceled due to the cold weather.
Crook, Weston, Campbell, Converse, Niobrara	Northeast Wyoming	1993-Dec-5		0	0	\$0	\$0	A winter storm dropped heavy snow over the northeast quarter of Wyoming. Hulett reported 10 inches of new snow with drifts over 4 feet temporarily closing I-90. The visibility at Lusk was near zero for much of the day.
Natrona, Big Horn, Sheridan, Johnson, Campbell, Crook, Weston, Converse, Niobrara	East Central	1995-Sep-19	20-Sep-1995	0	0	\$13,000	\$0	An early season winter storm dropped 6 to 12 inches of snow from Casper and the south end of the Big Horn Mountains to the Nebraska border. The snow damaged trees, breaking many branches. Power was out in the area for a time in the morning, with as many as 4,000 homes without power from Casper to Glenrock. In Lusk, the snow snapped a 2 by 4 beam in a building.
Converse, Natrona, Niobrara, Hot Springs, Johnson, Sheridan, Washakie, Campbell, Crook, Weston, Big Horn, Park, Teton, Carbon, Albany, Goshen, Laramie, Platte, Fremont, Sublette	All except the Southwest Corner	1995-Oct-21	23-Oct-1995	0	0	\$1,000,000	\$0	Heavy snow and strong winds caused blizzard conditions over much of Wyoming. Snowfall amounts ranged from four inches at Rock Springs and Gillette to 17 inches at Casper Mountain. Generally, 6 to 10 inches of snowfall was common. Winds gusted to 55 mph and caused blizzard conditions with drifts up to 5 feet deep. Reported drifts of 2 to 4r feet were common. Many roads were closed from the 22nd to the afternoon of the 23rd due to drifting and near-zero visibilities. Many travelers were stranded across the state until the 23rd and a number of hunters had to be rescued. Power was out for a time in various places, due to downed power lines from the heavy snow and strong winds.
Campbell, Crook, Weston	Gillette, Moorcroft, Wyoming Black Hills	1996-Mar-01		0	0			The Wyoming Black Hills received 7 to 9 inches of snow while Gillette reported 6 inches. Blizzard conditions caused numerous accidents and closed a number of highways.
Campbell,	Gillette, South	1996-Oct-26		0	0	\$62,000		Six to 12 inches of snow with wind gusts over 45 mph

**Table 15.1 Crook County Damaging Winter Storms: 1886-2012**

Location	County	Start Date	End Date	Deaths	Injured	Estimated Damage - Property	Estimated Damage - Crops	Information
Crook, Weston	Campbell, Moorcroft, Wyoming Black Hills, Weston							produced occasional blizzard conditions. Drifts to 3 feet were common and blowing snow reduced visibilities to zero. Numerous roads were closed including I-90 from Gillette to the Montana border. Widespread power outages were reported.
Campbell, Crook, Weston	Gillette, South Campbell, Moorcroft, Wyoming Black Hills, Weston	1996-Dec-16		0	0			A blizzard moved into northeast Wyoming during the early morning and ended around midnight. Blowing and drifting snow reduced visibilities to zero, which closed I-90 and other highways. Numerous accidents occurred along the roads, but none had serious injuries. Wind chill temperatures fell to around 50° below zero.
Campbell, Crook, Weston	Gillette, South Campbell, Moorcroft, Wyoming Black Hills, Weston	1997-Mar-12	13-Mar-1997	0	0			A winter storm of freezing drizzle, fog, and light snow turned roads into ice rinks and resulted in numerous power outages across northeast Wyoming.
Campbell, Crook, Weston	Gillette, South Campbell, Moorcroft, Wyoming Black Hills, Weston	1997-Apr-04	6-Apr-1997	0	0			Snowfall of 1 to 2 feet combined with 40 to 60 mph winds producing zero visibility and drifts to 15 feet across much of northeast Wyoming. Most roads were closed and power outages were widespread. Ranchers were hard hit with livestock losses as calving season was underway.
Campbell, Crook, Weston	Gillette, South Campbell, Moorcroft, Wyoming Black Hills, Weston	1998-Feb-24	28-Feb-1998	0	0			A powerful winter storm produced blizzard conditions between the 24th and 28th; with snow accumulations between 6 and 16 inches and sustained winds around 40 mph over most of northeast Wyoming. Snow drifts up to 16 feet were observed in the Gillette area. Numerous schools, coal mines and roads (including I-90) were closed during the storm.
Campbell, Crook, Weston	Gillette, Moorcroft, Wyoming Black Hills	1999-Mar-05		0	0			A surface low pressure system south of the Black Hills brought wrap around snowfall into northeastern Wyoming. The Gillette area had the most precipitation with up to 12 inches reported. I-90 was closed from Gillette to Sheridan because of the snowfall and the rapid accumulations that occurred at times.
Crook, Weston	Wyoming Black Hills	2000-Feb-25		0	0			A strong storm system brought 4 to 18 inches of snow throughout northeastern Wyoming with drifts of 2 to 3 feet. Winds of 25 to 40 mph with gusts to 50 mph were common on the plains with visibilities less than a quarter mile. I-90 was closed for several hours during the afternoon and evening. There were more than 20 minor accidents with no major injuries reported.
Campbell, Crook, Weston	Moorcroft, Wyoming Black Hills, Weston	2000-Nov-1		0	0	\$787,000		An intense winter storm brought high winds and heavy, wet snowfall to portions of northeastern Wyoming. In Crook and Weston Counties, snowfall rates were 1 to 2 inches an hour. Snowfall totals in the plains were from 4

**Table 15.1 Crook County Damaging Winter Storms: 1886-2012**

Location	County	Start Date	End Date	Deaths	Injured	Estimated Damage - Property	Estimated Damage - Crops	Information
								to 8 inches, while in the Bear Lodge Mountains, totals were from 8 to 24 inches. The Four Corners area in northeastern Weston County reported the most snowfall at 24 inches. High winds sustained up to 40 mph with gusts to 60 mph caused blizzard conditions and toppled 600 power poles; 7,000 people were without power and almost 15 miles of lines had to be replaced. The city of Moorcroft had more than 150 stranded semi-trucks after the interstate was shut down. In Campbell County, the temperatures were too warm for snow and rain fell throughout the day, but high winds were reported with gusts more than 50 mph at times. The highest gust in Campbell County was 64 mph at Echeta.
Campbell, Crook, Weston	Gillette, South Campbell, Moorcroft, Wyoming Black Hills, Weston	2000-Dec-15		0	0			A strong cold front moved across the region producing strong winds from 35 to 45 mph with gusts to 60 mph. Up to 3 inches of snowfall was reported with ground blizzard conditions bringing visibilities to zero. Area wide there were more than ten auto accidents reported. On one highway south of Gillette several semi-trucks were jack-knifed due to poor visibility and icy conditions. Conditions improved by late evening across the region. Wind chill temperatures dropped to 50° to 70° below zero through the night and into the next day.
Campbell, Crook, Weston	Gillette, South Campbell, Moorcroft, Wyoming Black Hills, Weston	2001-Feb-06	7-Feb-2001	0	0			Snowstorm dropped from 6 to 9 inches of snow with isolated amounts of up to 11 inches. Some blowing and drifting was reported with roads closed in parts of southwest and central Wyoming including I-80.
Campbell, Crook, Weston	Northern Campbell, South Campbell, Moorcroft, Weston	2003-Mar-17	19-Mar-2003	0	0			A potent winter storm slowly moved across the central Rockies and through the northern Plains, bringing heavy snow and strong winds to much of northeastern Wyoming. Rain developed across the area during the day of the 17th and then gradually changed to snow from west to east during the evening and overnight hours. Snow continued on the 18th as the wind began to increase in intensity, causing near blizzard conditions at times. The snow and wind finally began to taper off during the evening of the 18th. Snowfall amounts were heaviest across Campbell County, where 8 to 12 inches of snow were common, with drifts 2 to 3 feet deep. Snowfall amounts across Crook and Weston counties were generally in the 4 to 8 inch range, with lesser amounts along the South Dakota border.

**Table 15.1 Crook County Damaging Winter Storms: 1886-2012**

Location	County	Start Date	End Date	Deaths	Injured	Estimated Damage - Property	Estimated Damage - Crops	Information
Northern Campbell, South Campbell, Western Crook, Wyoming Black Hills, Weston, Northeastern Crook	Campbell, Crook, Weston	2004-Feb-28	29-Feb-2004					A powerful upper level storm system moved slowly across the Central Rockies and then through the Northern and Central Plains, bringing abundant precipitation and heavy snow to much of Northeast Wyoming. The system began to affect Northeast Wyoming on the afternoon of the 28th as rain and snow overspread the area. Precipitation changed to all snow during the evening hours and continued through the overnight. There was a brief break in the precipitation during the morning hours of the 29th. Snow then redeveloped across the area in the afternoon and persisted into the morning hours of March 1st. Strong northwest winds developed late on the 29th. The winds caused significant blowing and drifting of snow into the next day. Snowfall amounts in Northeast Wyoming were generally in the 5 to 12 inch range, with locally higher amounts across the Bear Lodge Mountains and the Wyoming Black Hills.
Northern Campbell, South Campbell, Western Crook, Wyoming Black Hills, Weston	Campbell, Crook, Weston	2005-Apr-20	21-Apr-2005					A strong spring storm developed across the Central Rockies and moved across the Central Plains. This storm brought heavy snow to Campbell County, far western parts of Crook and Weston Counties, and the higher elevations of the Wyoming Black Hills. Rain changed to snow during the overnight hours and continued through the day. Snow amounts of 6 to 12 inches fell across Campbell County, with local amounts of 15 inches in western parts of the county. Western parts of Crook and Weston Counties and the Wyoming Black Hills had accumulations of 4 to 8 inches. The heavy wet snow caused numerous power outages and brought down tree limbs across the area. A roof of a convenience store collapsed under the weight of the snow. Many highways across Campbell County, including Interstate 90 west of Moorcroft, were closed for much of the day.
Northern Campbell, South Campbell, Western Crook, Wyoming Black Hills, Northeast Crook	Campbell, Crook	2005-May-11	12-May-2005					A strong late spring storm developed across the Central Rockies and moved across the Northern Plains. The storm brought heavy snow to much of Campbell County and northern portions of Crook County. Rain gradually changed to snow across the area during the midday hours and increased in intensity by evening. Snowfall amounts of 6 to 12 inches fell north of a line from west of Wright to Gillette to Sundance, with lesser amounts to the south. The heavy wet snow downed many tree limbs and caused some power outages.
Northern	Campbell,	2005-Oct-4	5-Oct-2005			\$550,000		A strong low pressure system developed over the Central

**Table 15.1 Crook County Damaging Winter Storms: 1886-2012**

Location	County	Start Date	End Date	Deaths	Injured	Estimated Damage - Property	Estimated Damage - Crops	Information
Campbell, South Campbell, Western Crook, Wyoming Black Hills, Northeastern Crook	Crook							Rockies and moved through the Northern Plains, bringing heavy snow to much of northeast Wyoming. Precipitation started as rain during the day and changed over to snow late in the afternoon, mixed with freezing rain and sleet. Heavy snow fell during the night and ended in the morning. Snowfall amounts were generally 6 to 12 inches, with locally higher amounts across northern Campbell and Crook Counties. The heavy, wet snow resulted in many downed trees, branches, and power lines. This caused numerous power outages and some minor property damage. The 7 inches of snow at Colony tied for the 5th highest daily snowfall for October. 7 inches also fell at Sundance and tied for the 9th highest daily snowfall there in October.
Northern Campbell, Western Crook, Wyoming Black Hills, Weston, Northeastern Crook	Campbell, Crook, Weston	2006-Apr-18	19-Apr-2006					A major spring storm moved across the Northern and Central Plains, bringing heavy snow to much of northeast Wyoming. Snowfall amounts of 6 to 12 inches were common across much of the area. Across the Wyoming Black Hills, snowfall amounts were generally 12 to 30 inches. Gusty northwest winds on the plains resulted in considerable blowing and drifting snow, reducing visibilities to below a quarter mile at times. Interstate 90 was closed from Gillette to the South Dakota border for over 24 hours. Some trees were downed and power outages resulted from heavy wet snow and gusty winds.
Wyoming Black Hills	Crook	2007-Feb-16	16-Feb-2007					A strong low pressure system moved across the northern Plains and produced heavy upslope snowfall across the Wyoming Black Hills and the Bear Lodge Mountains. 6 to 15 inches of snow fell across much of the area, with the highest amounts around Four Corners. Gusty winds produced blowing and drifting snow and reduced visibilities to a quarter of a mile or less at times.
Northeastern Crook, Western Crook, Wyoming Black Hills	Crook	2007-Mar-28	30-Mar-2007					A powerful storm system moved across the region, bringing significant amounts of snowfall to northeastern Wyoming. 8 to 16 inches of snow fell across much of the area, with localized amounts near 24 inches across Campbell County. Strong northwest winds caused considerable blowing and drifting snow and closed many roads, including Interstate 90, for more than 24 hours.
Western Crook, Wyoming Black Hills	Crook	2008-Jan-17	18-Jan-2008					A clipper system brought heavy snow and gusty winds to northeastern Wyoming. 4 to 10 inches of snow were common across the plains, with 1 to 2 feet of snow across upslope areas of the Wyoming Black Hills. Gusty northwest winds of 15 to 30 mph produced considerable blowing and drifting snow.

**Table 15.1 Crook County Damaging Winter Storms: 1886-2012**

Location	County	Start Date	End Date	Deaths	Injured	Estimated Damage - Property	Estimated Damage - Crops	Information
Western Crook	Crook	2008-Apr-05	06-Apr-2008					A storm system moving from the northern Rockies into northern Plains produced snow across far northeastern Wyoming. Seven to nine inches of snow fell across extreme northern Campbell and northern Crook Counties.
Western Crook	Crook	2008-May-01	02-May-2008					Heavy snow fell over northeastern Wyoming.
Northeastern Crook, Western Crook	Crook	2008-Oct-11	12-Oct-2008					A strong early fall storm brought snow to northeastern Wyoming. The heaviest snow fell across northern Campbell and Crook Counties, where 6 to 12 inches accumulated. The rest of northeastern Wyoming received 3 to 6 inches. Some rain, freezing rain, and sleet also occurred before the snow began.
Western Crook, Wyoming Black Hills	Crook	2008-Nov-05	06-Nov-2008					An intense fall storm brought heavy snow and gusty winds to northeastern Wyoming. Snowfall across Crook and Weston counties ranged from 5 to 12 inches with over a foot of snow across the Wyoming Black Hills. The gusty northwest winds and snow reduced visibility to a quarter of a mile or less. Some roads across the area were closed.
Wyoming Black Hills	Crook	2008-Dec-13	14-Dec-2008					An Arctic cold front crossed the region, producing snow, gusty winds, and extremely low wind chills over the Wyoming Black Hills. Snowfall was generally in the 2 to 6 inch range, but visibility was occasionally reduced to a quarter of a mile. Wind chill values dropped to 25 below to 50 below 0 on the 14 <sup>th</sup> .
Western Crook	Crook	2009-Feb-25	26-Feb-2009					A strong cold front and upper level system brought heavy snow to portions of western Crook County. As much as 8 inches of snow was measured in the Hulett area.
Western Crook, Wyoming Black Hills	Crook	2009-Mar-09	10-Mar-2009					An upper level storm system moved from the Rockies into the Northern Plains, bringing heavy snow to northeastern Wyoming. Snowfall totals were in the 6 to 12 inch range, with the highest amounts across the Bear Lodge Mountains and Wyoming Black Hills. Gusty northwest winds caused blowing and drifting snow.
Wyoming Black Hills	Crook	2009-Mar-30	31-Mar-2009					The second strong spring storm in a week brought heavy snow and gusty winds to the Wyoming Black Hills and adjacent plains. Snowfall amounts were 6 to 12 inches, with higher amounts over the Wyoming Black Hills. Gusty winds produced considerable blowing and drifting snow, with visibilities below a quarter of a mile. Many area roads were closed.
Northeastern Crook, Western	Crook	2009-Apr-03	04-Apr-2009					A strong spring storm moved across Central Plains, bringing heavy snow and gusty winds to northeastern Wyoming. Snowfall amounts ranged from 6 to 12 inches

**Table 15.1 Crook County Damaging Winter Storms: 1886-2012**

Location	County	Start Date	End Date	Deaths	Injured	Estimated Damage - Property	Estimated Damage - Crops	Information
Crook, Wyoming Black Hills								while strong northerly winds produced considerable blowing and drifting snow across the plains.
Northeastern Crook, Wyoming Black Hills	Crook	2009-Apr-25	26-Apr-2009					A strong spring storm brought heavy snow to much of northeastern Wyoming. Snowfall was generally in the 5 to 9 inch range, with the higher amounts across the Wyoming Black Hills of Crook and Weston Counties.
Western Crook, Northeastern Crook	Crook	2009-Oct-04	05-Oct-2009					An early fall storm system brought rain and snow to the region. Across northeastern Wyoming, the precipitation began as rain, then changed to snow during the night. Snowfall amounts of four to six inches were reported across the area.
Wyoming Black Hills	Crook	2009-Oct-28	29-Oct-2009					A strong winter storm crossed the region, bringing snow to much of northeastern Wyoming. The heaviest snow fell across the higher elevations of the Wyoming Black Hills, where 5 to 10 inches of snow accumulated. The highest amount reported was 10 inches southeast of Hulett.
Wyoming Black Hills	Crook	2009-Dec-23	24-Dec-2009					A storm system brought snow to much of northeastern Wyoming. The heaviest snow fell across northern Campbell County and the Wyoming Black Hills, where a total of 5 to 8 inches were reported.
Western Crook	Crook	2009-Dec-25	26-Dec-2009			\$25,000		A powerful winter storm brought heavy snow and gusty winds to portions of northeastern Wyoming. The heaviest snow fell across the Wyoming Black Hills, where 1 to 2 feet of snow was reported. Gusty winds produced significant blowing and drifting of snow, reducing visibilities below a quarter mile at times.
Northeastern Crook, Western Crook, Wyoming Black Hills	Crook	2010-Jan-24	24-Jan-2010					A strong storm system brought snow and gusty winds to far northeastern Wyoming. As much as 10 inches of snow fell across the Wyoming Black Hills. Gusty north to northwest winds produced blowing and drifting snow, reducing visibilities below a quarter mile at times.
Western Crook, Wyoming Black Hills	Crook	2010-Apr-01	02-Apr-2010					A strong spring storm brought heavy snow to much of northeastern Wyoming. Snow amounts of 6 to 12 inches were common across Campbell and Crook counties. Accumulations to 18 inches were reported over northern Campbell County and the Wyoming Black Hills.
Western Crook, Northeastern Crook	Crook	2010-Nov-21	22-Nov-2010					A fast moving storm system moved across the Northern Plains, bringing snow to northeastern Wyoming during the night and early morning. Two to five inches of snow were common, with four to ten inches of snow accumulating around Osage and Upton.
Wyoming	Crook	2010-Nov-28	29-Nov-2010					A strong low pressure system moved across the Central

**Table 15.1 Crook County Damaging Winter Storms: 1886-2012**

Location	County	Start Date	End Date	Deaths	Injured	Estimated Damage - Property	Estimated Damage - Crops	Information
Black Hills								Plains, bringing snow to much of northeastern Wyoming. The heaviest snow fell over the Wyoming Black Hills near Bear Lodge Mountains, where significant upslope enhanced snowfall developed. 6 to 12 inches of snow were common across the area, with reports of nearly two feet of snow northwest of Sundance.
Western Crook, Wyoming Black Hills	Crook	2010-Dec-30	31-Dec-2010					A powerful winter storm brought heavy snow and gusty winds to the region. The first part of the storm produced heavy snow, especially over northern Campbell County, on Dec. 30. The main system moved across the Central Plains with additional snow and gusty winds, especially over the Wyoming Black Hills, on Dec 31. Blowing snow reduced visibilities to near a quarter of a mile while snowfall ranged from 5 to 10 inches. Temperatures around 0 and brisk winds produced wind chills around 25 degrees below 0.
Wyoming Black Hills	Crook	2011-Jan-08	09-Jan-2011					An upper level storm system moved across the Northern Rockies and Northern Plains, bringing snow to northeastern Wyoming. The heaviest snow occurred across the Wyoming Black Hills and northern Weston County, where snowfall ranged from 6 to 12 inches.
Wyoming Black Hills	Crook	2011-Jan-22	22-Jan-2011					A strong upper level disturbance brought snow to much of the area. The heaviest snow fell across the Wyoming Black Hills, where upslope enhanced snowfall totaled 5 to 9 inches in the Sundance area.
Wyoming Black Hills	Crook	2011-Feb-05	06-Feb-2011					A series of upper level disturbances brought snow to much of northeastern Wyoming. The heaviest snow developed over the Wyoming Black Hills, where upslope northwest winds enhanced snowfall. Snowfall amounts of 6 to 12 inches were reported, with the highest amounts in the Four Corners area. Gusty winds produced blowing snow, greatly reducing visibilities at times.
Western Crook, Wyoming Black Hills	Crook	2011-Feb-19	20-Feb-2011					A strong winter storm moved across the Rockies and Northern Plains, bringing heavy snow to extreme northeastern Wyoming. The heaviest snow fell across northern Campbell and Crook counties and the Wyoming Black Hills, where 5 to 9 inches of snow were reported. Gusty northwest winds produced areas of blowing snow and greatly reduced visibilities at times.
Western Crook, Wyoming Black Hills	Crook	2011-Nov-18	19-Nov-2011					A winter storm moved quickly across the area and produced 4 to 8 inches of snow across much of northeastern Wyoming. The heaviest snow fell from southern Campbell County into Weston County, where as much as 12 inches was reported.
Wyoming	Crook	2012-Jan-21	22-Jan-2012					A winter storm brought locally heavy upslope snowfall to

**Table 15.1 Crook County Damaging Winter Storms: 1886-2012**

Location	County	Start Date	End Date	Deaths	Injured	Estimated Damage - Property	Estimated Damage - Crops	Information
Black Hills								the Wyoming Black Hills. 3 to 6 inches of snow were reported, with the highest amounts over the Bear Lodge Mountains. Gusty winds caused blowing snow and reduced visibilities to around a quarter mile in the Sundance area.
Wyoming Black Hills	Crook	2012-Feb-28	29-Feb-2012					A strong winter storm developed over the Rockies and moved quickly across the Northern Plains. The storm brought locally heavy snow to the Wyoming Black Hills with snowfall of 3 to 6 inches across the area. The combination of snow and gusty winds produced some blowing and drifting snow, reducing visibilities to a quarter mile at times during the late afternoon and evening.

## **Impacts**

Winter storms usually cover a significant part of the State, and as such are difficult to analyze specific impacts at a county level. The historic dollar impact of winter storms statewide is around \$161.6 million. In 2012 dollars the statewide impact is \$491,010,314. The actual statewide impacts are much greater because of the effects on transportation and because of loss of life and injuries. The impacts from loss of livestock can carry over for many years.

## **Future Impacts**

Based on the history of winter storms, Crook County will continue to experience damaging winter storms almost every year. Based on the worst case regional event that involved Crook County (1984) the dollar impacts could be in excess of \$37 million (assuming an equal distribution of the total losses of \$222.7 million, in 2012 dollars, across the 6 counties involved), enough power lines could be toppled that emergency intervention could be required, significant property damage could occur, and the livestock industry could lose 15%-20% of its inventory. Life safety will continue to be a concern for motorists, outdoor enthusiasts, or ranchers stranded by winter storms. Injuries and deaths will likely occur during storm-related vehicle accidents.

## **Summary**

**PROPERTY AFFECTED: Medium**

**POPULATION AFFECTED: High**

**PROBABILITY: High**

**JURISDICTION AFFECTED: County and all jurisdictions**